ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 13:38:47 ON 16 FEB 2007)

FILE 'REGISTRY' ENTERED AT 13:39:10 ON 16 FEB 2007
L1 STRUCTURE UPLOADED
L2 0 S L1 SSS SAM
L3 0 S L1 FULL
L4 STRUCTURE UPLOADED

L4 STRUCTURE UPLOADED
L5 0 S L4 SSS SAM
L6 5 S L4 FULL

FILE 'CAPLUS' ENTERED AT 13:42:10 ON 16 FEB 2007 L7 $$ 7 S L6

FILE 'REGISTRY' ENTERED AT 13:44:27 ON 16 FEB 2007
L8 STRUCTURE UPLOADED
L9 0 S L8 SSS SAM
L10 4 S L8 FULL

FILE 'CAPLUS' ENTERED AT 13:45:02 ON 16 FEB 2007, L11 $$\rm 3\ S\ L10$$

C:\Program Files\Stnexp\Queries\10519979.str

chain nodes:

24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

ring nodes:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

chain bonds

1-25 4-27 8-18 9-28 10-26 12-33 13-35 13-37 14-36 14-38 15-39 16-40 17-29 19-32 20-31 21-24 22-30 33-34

ring bonds:

1-2 1-6 2-3 2-16 3-4 3-23 4-5 5-6 5-7 6-10 7-8 8-9 9-10 11-12 11-16 12-13 13-14 14-15 15-16 15-23 17-18 17-22 18-19 19-20 20-21 21-22

exact/norm bonds:

1-25 2-16 3-23 5-7 6-10 7-8 8-9 9-10 10-26 11-12 11-16 12-13 13-14 13-37 14-15 14-38 15-16 15-23 21-24

exact bonds:

4-27 8-18 9-28 12-33 13-35 14-36 15-39 16-40 17-29 19-32 20-31 22-30 33-34

normalized bonds:

1-2 1-6 2-3 3-4 4-5 5-6 17-18 17-22 18-19 19-20 20-21 21-22

Match level:

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:CLAS\$25:CLAS\$26:CLAS\$27:CLAS\$28:CLAS\$29:CLAS\$30:CLAS\$31:CLAS\$32:CLAS\$33:CLAS\$34:CLAS\$35:CLAS\$36:CLAS\$37:CLAS\$38:CLAS\$39:CLAS\$40:CLAS\$

C:\Program Files\Stnexp\Queries\10519979a.str

chain nodes:

24 25 26 27 28 29 30 31 32 33 34

ring nodes:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

chain bonds:

1-25 8-18 10-26 12-27 13-29 13-31 14-30 14-32 15-33 16-34 21-24 27-28

ring bonds:

1-2 1-6 2-3 2-16 3-4 3-23 4-5 5-6 5-7 6-10 7-8 8-9 9-10 11-12 11-16 12-13 13-14 14-15 15-16 15-23 17-18 17-22 18-19 19-20 20-21 21-22

exact/norm bonds:

1-25 2-16 3-23 5-7 6-10 7-8 8-9 9-10 10-26 11-12 11-16 12-13 13-14 13-31 14-15 14-32 15-16 15-23 21-24

exact bonds:

8-18 12-27 13-29 14-30 15-33 16-34 27-28

normalized bonds:

1-2 1-6 2-3 3-4 4-5 5-6 17-18 17-22 18-19 19-20 20-21 21-22

Match level:

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:CLAS\$25:CLAS\$26:CLAS\$27:CLAS\$ 28:CLAS\$29:CLAS\$31:CLAS\$31:CLAS\$32:CLAS\$33:CLAS\$34:CLAS\$

C:\Program Files\Stnexp\Queries\10519979b.str

chain nodes:

23 24 25 26 27 28 30 31 32 33

ring nodes:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 29

chain bonds:

1-24 8-18 10-25 11-30 12-31 13-26 13-32 15-27 16-28 21-23 32-33

ring bonds

1-2 1-6 2-3 3-4 3-29 4-5 4-15 5-6 5-7 6-10 7-8 8-9 9-10 11-12 11-16 12-13 13-14 14-15 15-16 16-29 17-18 17-22 18-19 19-20 20-21 21-22

exact/norm bonds:

1-24 3-29 4-15 5-7 6-10 7-8 8-9 9-10 10-25 11-12 11-16 11-30 12-13 12-31 13-14 14-15 15-16 16-29 21-23

exact bonds:

8-18 13-26 13-32 15-27 16-28 32-33

normalized bonds:

1-2 1-6 2-3 3-4 4-5 5-6 17-18 17-22 18-19 19-20 20-21 21-22

Match level:

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:CLAS\$24:CLAS\$25:CLAS\$26:CLAS\$27:CLAS\$28:CLAS\$29:Atom 30:CLAS\$31:CLAS\$32:CLAS\$31:CLAS

Connecting via Winsock to STN

LOGINID:ssspta1600txm

Welcome to STN International! Enter x:x

```
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2
         * * * * * Welcome to STN International
                  Web Page URLs for STN Seminar Schedule - N. America "Ask CAS" for self-help around the clock
NEWS
NEWS
NEWS 3 OCT 23
                  The Derwent World Patents Index suite of databases on STN
                  has been enhanced and reloaded
NEWS
          OCT 30
                  CHEMLIST enhanced with new search and display field
NEWS
         NOV 03
                  JAPIO enhanced with IPC 8 features and functionality
NEWS
         NOV 10
                  CA/CAplus F-Term thesaurus enhanced
         NOV 10
                  STN Express with Discover! free maintenance release Version
NEWS
                  8.01c now available
NEWS 8 NOV 20
                  CA/Caplus to MARPAT accession number crossover limit increased
                  to 50,000
NEWS 9
          DEC 01
                  CAS REGISTRY updated with new ambiguity codes
NEWS 10
         DEC 11
                  CAS REGISTRY chemical nomenclature enhanced.
NEWS 11
          DEC 14
                  WPIDS/WPINDEX/WPIX manual codes updated
NEWS 12
         DEC 14
                  GBFULL and FRFULL enhanced with IPC 8 features and
                  functionality
NEWS 13 DEC 18
                  CA/CAplus pre-1967 chemical substance index entries enhanced
                  with preparation role
NEWS 14. DEC 18
                  CA/CAplus patent kind codes updated
NEWS 15 DEC 18
                  MARPAT to CA/CAplus accession number crossover limit increased
                  to 50,000
NEWS 16
          DEC 18
                  MEDLINE updated in preparation for 2007 reload
NEWS 17
          DEC 27
                  CA/CAplus enhanced with more pre-1907 records
NEWS 18
          JAN 08
                  CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS 19
          JAN 16
                  CA/CAplus Company Name Thesaurus enhanced and reloaded
                  IPC version 2007.01 thesaurus available on STN
NEWS 20
          JAN 16
NEWS 21
          JAN 16
                  {\tt WPIDS/WPINDEX/WPIX}\ enhanced\ with\ {\tt IPC}\ 8\ reclassification\ data
NEWS 22
          JAN 22
                  CA/CAplus updated with revised CAS roles
NEWS 23
          JAN 22
                  CA/CAplus enhanced with patent applications from India
                  PHAR reloaded with new search and display fields
CAS Registry Number crossover limit increased to 300,000 in
          JAN 29
NEWS 24
NEWS 25
          JAN 29
                  multiple databases
NEWS 26
          FEB 13
                  CASREACT coverage to be extended
NEWS 27
          Feb 15
                  PATDPASPC enhanced with Drug Approval numbers
NEWS 28 Feb 15
                  RUSSIAPAT enhanced with pre-1994 records
NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT.
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
NEWS HOURS
               STN Operating Hours Plus Help Desk Availability
NEWS LOGIN
               Welcome Banner and News Items
NEWS IPC8
               For general information regarding STN implementation of IPC 8
NEWS X25
               X.25 communication option no longer available
Enter NEWS followed by the item number or name to see news on that
specific topic.
 All use of STN is subject to the provisions of the STN Customer
 agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation
             Use for software development or design or implementation
 of commercial gateways or other similar uses is prohibited and may
 result in loss of user privileges and other penalties.
 FILE 'HOME' ENTERED AT 13:38:47 ON 16 FEB 2007
```

McIntosh

=> file req

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 13:39:10 ON 16 FEB 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ${\tt ZIC/VINITI}$ data file provided by InfoChem.

STRUCTURE FILE UPDATES: 15 FEB 2007 HIGHEST RN 921436-24-0 DICTIONARY FILE UPDATES: 15 FEB 2007 HIGHEST RN 921436-24-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting ${\tt SmartSELECT}$ searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> Uploading C:\Program Files\Stnexp\Queries\10519979.str

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

L1 S'

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

Structure attributes must be viewed using STN Express query preparation.

=> s 11 sss sam

SAMPLE SEARCH INITIATED 13:39:51 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 100 TO ITERATE

100.0% PROCESSED 100 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS:

1401 TO 2599

PROJECTED ANSWERS:

. 0 TO 0

0 SEA SSS SAM L1

=> s 11 full

FULL SEARCH INITIATED 13:39:56 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 2042 TO ITERATE

100.0% PROCESSED 2042 ITERATIONS

O ANSWERS .

SEARCH TIME: 00.00.01

O SEA SSS FUL L1

L3 =>

Uploading C:\Program Files\Stnexp\Queries\10519979a.str

L4 STRUCTURE UPLOADED

=> s 14 sss sam

SAMPLE SEARCH INITIATED 13:41:44 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 100 TO ITERATE

100.0% PROCESSED

100 ITERATIONS

O ANSWERS

McIntosh

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

COMPLETE BATCH

PROJECTED ITERATIONS: 1401 TO 2599

PROJECTED ANSWERS: 0 TO

0 SEA SSS SAM L4 1.5

=> s 14 full

FULL SEARCH INITIATED 13:41:49 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED -2042 TO ITERATE

100.0% PROCESSED 2042 ITERATIONS SEARCH TIME: 00.00.01

5 ANSWERS

L6 5 SEA SSS FUL L4

=> d scan 1-5 16

'1-5' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

L6 5 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN

2H, 10H-Pyrano[2', 3':4, 5] furo[3, 2-g] [1] benzopyran-10-one, 3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4-methoxyphenyl)-, (2R,3S,4S,4aS,11bS)- (9CI)

MF C22 H20 O9

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

The following are valid formats:

Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

REG - RN

SAM - Index Name, MF, and structure - no RN

- All substance data, except sequence data

IDE - FIDE, but only 50 names SQIDE - IDE, plus sequence data

SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used

SQD

- Protein sequence data, includes RN - Same as SQD, but 3-letter amino acid codes are used SOD3 - Protein sequence name information, includes RN SON

- Table of calculated properties - Table of experimental properties EPROP

- EPROP and CALC PROP

Any CA File format may be combined with any substance format to obtain CA references citing the substance. The substance formats must be cited first. The CA File predefined formats are:

APPS -- Application and Priority Information

BIB -- CA Accession Number, plus Bibliographic Data

CAN -- CA Accession Number

CBIB -- CA Accession Number, plus Bibliographic Data (compressed)

McIntosh

IND -- Index Data IPC -- International Patent Classification

PATS -- PI, SO

STD -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels IBIB -- BIB, indented, with text labels ISTD -- STD format, indented

OBIB ----- AN, plus Bibliographic Data (original)

OIBIB ----- OBIB, indented with text labels

SBIB ----- BIB, no citations SIBIB ----- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.

The MAX format is the same as ALL.

The IALL format is the same as ALL with BIB ABS and IND indented,

with text labels.

For additional information, please consult the following help messages:

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):5

REGISTRY COPYRIGHT 2007 ACS on STN

2H, 10H-Pyrano[2', 3':4,5]furo[3,2-g][1]benzopyran-10-one, IN 3, 4, 4a, 11b-tetrahydro-11-methoxy-3, 4-bis (phenylmethoxy) -2-[(phenylmethoxy)methyl]-8-[4-(phenylmethoxy)phenyl]-, (2R,3R,4s,4aR,11bS)-

(9CI) MF C50 H44 O9

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

REGISTRY COPYRIGHT 2007 ACS on STN

2H, 10H-Pyrano[2', 3':4, 5] furo[3, 2-g][1]benzopyran-10-one, 3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-[4-(methoxymethoxy)phenyl]-, (2R, 3S, 4S, 4aS, 11bS)- (9CI)

C23 H22 O10

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 5 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN

IN 2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one,
 3,4,4a,11b-tetrahydro-11-methoxy-8-(4-methoxyphenyl)-3,4- bis(phenylmethoxy)-2-[(phenylmethoxy)methyl]-, (2R,3R,4S,4aR,11bS)- (9CI)

MF C44 H40 O9

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 5 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN

2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one,
3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4-hydroxyphenyl)-, (2R,3S,4S,4aS,11bS)- (9CI)

MF C21 H18 09

Absolute stereochemistry. Rotation (-).

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

=> file caplus COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 345.55 345.76

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 13:42:10 ON 16 FEB 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the

```
10/519,979
```

American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 16 Feb 2007 VOL 146 ISS 9 FILE LAST UPDATED: 15 Feb 2007 (20070215/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

=> d his

(FILE 'HOME' ENTERED AT 13:38:47 ON 16 FEB 2007)

FILE 'REGISTRY' ENTERED AT 13:39:10 ON 16 FEB 2007

L1 STRUCTURE UPLOADED

L2 0 S L1 SSS SAM

L3 0 S L1 FULL

L4 STRUCTURE UPLOADED

L5 0 S L4 SSS SAM

L6 5 S L4 FULL

FILE 'CAPLUS' ENTERED AT 13:42:10 ON 16 FEB 2007

=> s 16

L7 7 L6

=> d bib abs hitstr 1-7 17

L7 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:1332639 CAPLUS

DN 146:42084

TI Antitumors isolated from oolong tea leaf

IN Wakabayashi, Keiji; Nukatani, Haruo; Muto, Tomohiro

PA National Cancer Center, Japan

SO Jpn. Kokai Tokkyo Koho, 18pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE 1	APPLICATION NO.	DATE		
ΡI	JP 2006342103	Α	20061/221	JP 2005-169262	20050609		
DDAT	TD 2005-160262		2005/0600				

PRAI JP 2005-169262 20050609

AB The antitumoric OTAC (Oolong tea active compound), flavone derivs., are extracted from Oolong tea leaf. The antitumoric OTAC are able to inhibit cancer in rat colonic aberrant crypt foci (ACF model) and colonic polyp-formation Apc gene-deficient mouse model. Extraction of the antitumoric OTAC from the oolong tea leaf with hot water and inhibition of cancer in the two animal models were shown.

IT 720684-57-1P

RL: FFD (Food or feed use); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(OTAC antitumors isolated from oolong tea leaf)

RN 720684-57-1 CAPLUS

CN 2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one, 3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4-hydroxyphenyl)-, (2R,3S,4S,4aS,11bS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

McIntosh

```
ANSWER 2 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
```

2006:441728 CAPLUS ΑN

DN 145:347946

TI Inhibition of intestinal carcinogenesis by a new flavone derivative, Chafuroside, in oolong tea

Niho, Naoko; Mutoh, Michihiro; Sakano, Katsúhisa; Takahashi, Mami; Hirano, ΑU Sachiko; Nukaya, Haruo; Sugimura, Takashi; Wakabayashi, Keiji

Cancer Prevention Basic Research Project, National Cancer Center Research CS Institute, 5-1-1 Tsukiji, Chuo-ku, Tokyo, 104-0045, Japan

Cancer Science (2006), 97(4), 248-251 SO CODEN: CSACCM; ISSN: 1347-9032

PB Blackwell Publishing Asia Pty Ltd.

DТ Journal

English LA

A new flavone derivative, Chafuroside, has been isolated as a strong AΒ anti-inflammatory compound from oolong tea leaves, and its structure determined to be (2R, 3S, 4S, 4aS, 11bS) - 3, 4, 11 - trihydroxy - 2 - (hydroxymethyl) - 8 - (4 hydroxyphenyl)-3,4,4a,1lb-tetrahydro-2H,10H-pyrano[2',3':4,5]furo[3,2-g]chromen-10-one. To assess its potential to inhibit intestinal carcinogenesis, 2.5, 5, and 10 ppm Chafuroside was given in the diet to Apc-deficient Min mice for 14 wk from 6 wk of age. Total nos. of polyps were reduced to 83, 73, and 56% of the control value, resp. Moreover, dietary administration at 10 and 20 ppm reduced azoxymethane (AOM)-induced colon aberrant crypt foci (ACF) development in rats to 69% of the AOM-treated control value with the higher dose. Chafuroside-associated toxicity was not observed at 2.5-10 ppm in Min mice and 10-20 ppm in AOM-treated rats. These results suggest that Chafuroside might be a good chemopreventive agent for colon cancer.

TΨ 720684-57-1, Chafuroside RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (inhibition of intestinal carcinogenesis by Chafuroside in oolong tea)

720684-57-1 CAPLUS RN

2H, 10H-Pyrano[2', 3':4,5] furo[3, 2-g] [1]benzopyran-10-one, CN 3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4hydroxyphenyl)-, (2R, 3S, 4S, 4aS, 11bS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 3 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
L7
```

2005:1196260 CAPLUS AN

DN 143:440151

ΤI Preparation of flavone C glycoside

Tsuji, Kunio; Tanaka, Kei; Nukatani, Haruo; Furuta, Takumi IN

PΑ Japan Science and Technology Agency, Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

Japanese LA

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2005314260 PRAI JP 2004-132592 OS MARPAT 143:440151	A	20051110	JP 2004-132592	20040428

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT

Title compound I, which was isolated as antiallergy agent from oolong tea extract, is prepared by condensation of resorcinols II [R1, R2 = H, protecting group; R3 = (protected) OH, ether group, ester group; R4 = H, CO; when R3 = ether group and R4 = CO; then R3R4 may form (un)substituted ring] with sugars III (R5 = H, protecting group; R6 = halo, OC:NHCX3; X = halo) in the presence of Lewis acid catalysts in aprotic solvents and by treatment of C glycosides IV (R7, R8 = similar group as in R1, R2; R9, R10 = similar group as in R3, R4) with azodicarboxamide or azodicarboxylate esters and trialkylphosphine, triarylphosphine, or phosphoranes in aprotic solvents. Thus, 4-benzyloxy-2,6-dihydroxyacetophenone was treated with $\hbox{O-(2,3,4,6-tetra-O-benzyl-α-D-glucopyranosyloxy)}\ trichloroacetimidate$ in the presence of TMSOTf in CH2Cl2, esterified with 4-methoxymethoxybenzoic acid, cyclized, debenzylated, treated with TMAD and Bu3P in THF, and deprotected to give I. 791601-83-7P

TΤ

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of flavone C glycoside from resorcinols and sugars)

RN 791601-83-7 CAPLUS

2H, 10H-Pyrano[2', 3':4, 5] furo[3, 2-g][1]benzopyran-10-one, CN 3,4,4a,llb-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-[4-(methoxymethoxy)phenyl]-, (2R,3S,4S,4aS,1lbS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

TΤ 720684-57-1P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(preparation of flavone C glycoside from resorcinols and sugars)

720684-57-1 CAPLUS RN

CN 2H, 10H-Pyrano[2', 3':4, 5] furo[3, 2-q][1]benzopyran-10-one, 3, 4, 4a, 11b-tetrahydro-3, 4, 11-trihydroxy-2-(hydroxymethyl)-8-(4hydroxyphenyl)-, (2R,3S,4S,4aS,11bS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

- **L**7 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
- 2005:1103788 CAPLUS AN
- DN 143:386847
- Process for producing flavone c glycoside derivatives TI
- Tsuji, Kuniro; Nukaya, Haruo IN
- Suntory Limited, Japan PA
- SO PCT Int. Appl., 24 pp.
- CODEN: PIXXD2
- DТ Patent
- LA Japanese

FAN.CNT 1

```
PATENT NO.
                            KIND
                                   DATE
                                                 APPLICATION NO.
                                                                           DATE
PΙ
     WO 2005095416
                             A1
                                   20051013
                                                 WO 2005-JP5695
                                                                           20050328
          W: AE, AG, AL, AM, AT, AU,
                                         AZ, BA, BB, BG, BR, BW, BY,
                                                                       BZ, CA, CH,
              CN, CO, CR,
                           CU, CZ, DE,
                                         ÞΚ,
                                             DM, DZ, EC, EE,
                                                               EG, ES, FI, GB,
              GE, GH, GM, HR, HU, ID,
                                         IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK,
              LR, LS, LT,
                           LU, LV,
                                    MA,
                                         MD, MG, MK, MN, MW, MX, MZ,
                                                                        NA, NI, NO.
                                         RO, RU, SC, SD, SE, SG, SK, SL, SM, SY,
              NZ, OM, PG, PH, PL, PT,
              TJ.
                  TM, TN,
                                    TZ,
                                         UA, UG, US, UZ, VC, VN, YU,
                           TR, TT,
                                                                        ZA, ZM, ZW
          RW: BW, GH, GM,
                           KE, LS,
                                    MW.
                                         MZ, NA, SD, SL, SZ, TZ,
                                                                    UG, ZM, ZW, AM,
              AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
                                        HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
              EE, ES, FI,
                           FR, GB, GR,
              RO, SE, SI, SK,
                                TR, BF,
              MR, NE, SN, TD, TG
     JP 2005289888
                             Α
                                   20051020
                                               · JP 2004-107760
                                                                           20040331
     CA 2561401
                                   20051013
                                                 CA 2005-2561401
                                                                           20050328
          731522 A1 20061213 EP 2005-721621 20050328
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
        1731522
              IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR
PRAI JP 2004-107760
                                   20040331
     WO 2005-JP5695
                                   200 0328
GI
```

Т

This invention provided a process for efficiently producing a flavone C glycoside derivative represented by the formula I which is an antiallergic AB substance or its salt, or a flavone C glycoside derivative represented by the formula II or its salt. I and II can be easily and efficiently synthesized by using isovitexin and vitexin contained in herbs and so on as the starting materials reacted in the presence of dehydrating agent, such as 1,1'-azobis[N,N-dimethylformamide] and tri-n-butylphosphine. 720684-57-1P ΙT

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of flavone c glycoside derivs. by cyclization of (iso)vitexin)

RN 720684-57-1 CAPLUS

2H, 10H-Pyrano[2', 3':4, 5] furo[3, 2-g][1]benzopyran-10-one, CN 3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4hydroxyphenyl)-, (2R,3S,4S,4aS,11bS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 5 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
L7
AN
     2004:902389 CAPLUS
DN
     141:380099
TI
     Flavone derivatives and process for producing them
IN
     Nakatsuka, Takashi
     Daiichi Suntory Pharma Co., Ltd., Japan; Daiichi Suntory Biomedical
PΑ
     Research Co., Ltd.
     PCT Int. Appl., 66 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     Japanese
FAN. CNT 1
     PATENT NO.
                         KIND
                                 DATE
                                             APPLICATION NO.
                                                                     DATE
                                 20041 $ 28
     WO 2004092180
                          Α1
                                             WO 2004-JP5451
                                                                     20040416
         W: AE, AG, AL,
                        AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR,
                         CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
                                     IL, IN, IS,
             GE, GH, GM, HR, HU, ID,
                                                  JP, KE, KG, KP,
                                                                  KR, KZ, LC,
             LK, LR, LS, LT, LU, LV,
                                     MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM,
                         PG, PH, PL,
                                     PT, RO, RU,
                                                  SC, SD, SE, SG,
                                                                  SK, SL, SY,
             TJ, TM, TN,
                         TR,
                             TT,
                                 TZ
                                     UA,
                                         UG, US,
                                                  UZ,
                                                      VC,
                                                          VN, YU,
                                                                  ZA, ZM,
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
             BY, KG, KZ, MD, RU,
                                 тđ,
                                     TM, AT, BE, BG, CH, CY, CZ,
                                                                  DE, DK, EE,
             ES, FI, FR, GB, GR,
                                 HU, IE, IT, LU, MC, NL, PL, PT,
                                                                  RO,
                                                                      SE,
                                                                           SI.
                                  ¢G, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
             SK, TR, BF,
                         ВJ,
                             CF,
             TD,
                TG
     JP 2006176407
                                  0060706
                                             JP 2003-113976
                          Α
                                                                     20030418
PRAI JP 2003-113976
                                 20030418
                          Α
os
    MARPAT 141:380099
GI
```

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

A process for the production of flavone derivs. I [Rla, Rlb, Rlc, Rlm and Rln = H, OH, etc.], intermediates for the production thereof; and processes for producing the intermediates were disclosed. Further, the invention provides compds. I [Rla, Rlb, Rlc, Rlm and Rln = H, OH, etc.], (with the proviso that the compound wherein Rlc is OH, Rla, Rlb, Rlm, and Rln are hydrogen, and the sugar moiety is D-mannose is excepted), pharmacol. acceptable salts thereof, and pharmaceutical compns. containing both. example, treatment of a mixture of compound II, III (35 mg), e.g., prepared from Me 3,4,5-tri-O-benzyl-2-O-p-nitrobenzyl-D-glucopyranoside in 10 steps, with trimethylsilyl triflate at room temperature for 10 min afforded compound IV [Rla = Rlb = Rlc = Rlm = Rln = H] (8 mg), converted to compound I [Rla = Rlb = Rlc = Rlm = Rln = H] using BCl3. In contact dermatitis control test, compound I [Rla = Rlb = Rlc = Rlm = Rln = H] exhibited p<0.05 (Dunnett's test) at $\geq 2~\mu g/kg$ dose. Disclosed compds. I are claimed useful for the treatment of inflammation, allery. Formulation is given. TТ 780789-07-3P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (flavone scaffold preparation using iodobenzene diacetate) RN 780789-07-3 CAPLUS CN 2H, 10H-Pyrano[2', 3':4, 5] furo[3, 2-g] [1]benzopyran-10-one, 3,4,4a,11b-tetrahydro-11-methoxy-8-(4-methoxyphenyl)-3,4bis(phenylmethoxy)-2-[(phenylmethoxy)methyl]-, (2R, 3R, 4S, 4aR, 11bS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 720684-64-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(flavone scaffold preparation via heterocyclization using trimethylsilyl triflate)

RN 720684-64-0 CAPLUS

CN 2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one,
3,4,4a,1lb-tetrahydro-11-methoxy-3,4-bis(phenylmethoxy)-2[(phenylmethoxy)methyl]-8-[4-(phenylmethoxy)phenyl]-, (2R,3R,4S,4aR,11bS)(9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 720684-57-1P 780789-12-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of flavone derivs. for treatment of inflammation, allergy)

RN 720684-57-1 CAPLUS

CN 2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one,
3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4-hydroxyphenyl)-, (2R,3S,4S,4aS,11bS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 780789-12-0 CAPLUS

CN 2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one, 3,4,4a,1lb-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4-methoxyphenyl)-, (2R,3S,4S,4aS,1lbS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 6 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
L7
AΝ
     2004:769344 CAPLUS
DN
     141:411155
    Concise total synthesis of flavone C-glycoside having potent
     anti-inflammatory activity
ΑIJ
    Furuta, Takumi; Kimura, Tomoyuki; Kondo, Sachiko; Mihara, Hisashi;
    Wakimoto, Toshiyuki; Nukaya, Haruo; Tsuji, Kuniro; Tanaka, Kiyoshi
    School of Pharmaceutical Sciences, University of Shizuoka, Shizuoka,
CS
    422-8526, Japan
    Tetrahedron (2004), 60(42), 9375-9379
CODEN: TETRAB; ISSN: 0040-4020
SO
PΒ
    Elsevier B.V.
DT
    Journal
    English
LA
OS
    CASREACT 141:411155
AB
    The total synthesis of anti-inflammatory active flavone C-glycoside
     isolated from oolong tea extract is achieved. Introducing a C-glucosyl
    moiety to an aryl system and constructing a fused tetracyclic ring
    characteristic to this natural product were conducted based on the O-to-C
     rearrangement of sugar moiety and the successive intramol. Mitsunobu
     reaction, resp. This concise and efficient synthetic pathway is
    applicable to the large-scale synthesis of target flavone and for
    constructing a large library of related compds.
    791601-83-7P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (synthesis of the anti-inflammatory active flavone C-glycoside isolated
        from oolong tea extract via rearrangement and intramol. Mitsunobu
        reaction)
RN
    791601-83-7 CAPLUS
```

Absolute stereochemistry.

2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one, 3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethy1)-8-[4-(methoxymethoxy)pheny1]-, (2R,3S,4S,4aS,11bS)- (9CI) (CA INDEX NAME)

720684-57-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
 (synthesis of the anti-inflammatory active flavone C-glycoside isolated from oolong tea extract via rearrangement and intramol. Mitsunobu reaction)
720684-57-1 CAPLUS
2H,10H-Pyrano[2',3':4,5]furo[3,2-g][1]benzopyran-10-one,
3,4,4a,1lb-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4-hydroxyphenyl)-, (2R,3S,4S,4aS,1lbS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

IT

RN

CN

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

2004:403848 CAPLUS ΑN

DN 141:106296

ΤI First total synthesis of structurally unique flavonoids and their strong anti-inflammatory effect

Nakatsuka, Takashi; Tomimori, Yoshiaki; Fukuda, Yoshiaki; Nukaya, Haruo ΑU

CS Daiichi Suntory Biomedical Research Co., Ltd., Mishima-gun, Osaka, 618-8513, Japan

Bioorganic & Medicinal Chemistry Letters (2904), 14(12), 3201-3203 SO CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier Science B.V.

DT Journal

LAEnglish

os CASREACT 141:106296

GI

AB The first total synthesis of structurally unique flavonoids I (R = OH, H) is described. These compds. showed very strong anti-inflammatory effect against delayed hypersensitivity in a mouse model.

ΙT 720684-57-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of fused tricyclic flavonoids from a D-glucal and their strong

anti-inflammatory effect)

720684-57-1 CAPLUS RN

CN 2H, 10H-Pyrano[2', 3':4, 5] furo[3, 2-g][1]benzopyran-10-one, 3,4,4a,11b-tetrahydro-3,4,11-trihydroxy-2-(hydroxymethyl)-8-(4-hydroxyphenyl)-, (2R,3S,4S,4aS,11bS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

720684-64-0P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of fused tricyclic flavonoids from a D-glucal and their strong anti-inflammatory effect) 720684-64-0. CAPLUS 2H, 10H-Pyrano[2', 3':4,5]furo[3,2-g][1]benzopyran-10-one, 3,4,4a,11b-tetrahydro-11-methoxy-3,4-bis(phenylmethoxy)-2-[(phenylmethoxy)methyl]-8-[4-(phenylmethoxy)phenyl]-, (2R, 3R, 4S, 4aR, 11bS)-(CA INDEX NAME)

Absolute stereochemistry.

(9CI)

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file reg COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 384.53 38.77 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE -5.46 -5.46

FILE 'REGISTRY' ENTERED AT 13:44:27 ON 16 FEB 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 15 FEB 2007 HIGHEST RN 921436-24-0 DICTIONARY FILE UPDATES: 15 FEB 2007 HIGHEST RN 921436-24-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

Uploading C:\Program Files\Stnexp\Queries\10519979b.str

L8 STRUCTURE UPLOADED

=> s 18 sss sam SAMPLE SEARCH INITIATED 13:44:51 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED -100 TO ITERATE

100.0% PROCESSED 100 ITERATIONS 0 ANSWERS SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: PROJECTED ANSWERS:

1401 TO 2599

т. О

0 SEA SSS SAM L8

=> s 18 full

FULL SEARCH INITIATED 13:44:56 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 2042 TO ITERATE

100.0% PROCESSED 2042 ITERATIONS

4 ANSWERS

SEARCH TIME: 00.00.01

L10

4 SEA SSS FUL L8

=> file caplus

COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST 172.10 556.63

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL ENTRY SESSION

CA SUBSCRIBER PRICE

0.00 -5.46

FILE 'CAPLUS' ENTERED AT 13:45:02 ON 16 FEB 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 16 Feb 2007 VOL 146 ISS 9 FILE LAST UPDATED: 15 Feb 2007 (20070215/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

=> s 110

L11 3 L10

=> d bib abs hitstr 1-3 111

L11 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:1332639 CAPLUS

DN 146:42084

TI Antitumors isolated from oolong tea leaf

IN Wakabayashi, Keiji; Nukatani, Haruo; Muto, Tomohiro

PA National Cancer Center, Japan

SO Jpn. Kokai Tokkyo Koho, 18pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN. CNT 1

AB The antitumoric OTAC (Oolong tea active compound), flavone derivs., are extracted from Oolong tea leaf. The antitumoric OTAC are able to inhibit cancer in rat colonic aberrant crypt foci (ACF model) and colonic polyp-formation Apc gene-deficient mouse model. Extraction of the antitumoric OTAC from the oolong tea leaf with hot water and inhibition of cancer in the two animal models were shown.

McIntosh

Absolute stereochemistry.

```
L11
    ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
     2006:36756 CAPLUS
AN
DN
     144:108139
ΤI
     Preparation of flavones, their medial compositions, and their use as
     antiallergy and anti-inflammatory agents
IN
     Nakatsuka, Takashi; Nimura, Junko ·
     Daiichi Asbio Pharma Co., Ltd., Japan
PA
SO
     Jpn. Kokai Tokkyo Koho, 53 pp.
     CODEN: JKXXAF
DT
     Patent
LA
    Japanese
FAN.CNT 1
```

PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 2006008626 A 20060112 JP 2004-190367 20040628

PRAI JP 2004-190367 20040628

OS MARPAT 144:108139

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Flavones I [Rla-Rle = H, OH, Cl-6 linear or branched alkyl(oxy), halo] and their their pharmacol. acceptable salts are prepared from p-azidobenzyloxyfluoropyrans II (R3a-xirc = protecting group) and 2-hydroxyacetophenones III (R3d, R3e = protecting group) in the presence of Lewis acids via IV (R3a-R3e = protecting group; R3f = p-nitrobenzyl, p-azidobenzyl). Thus, cyclization of 8-[(2S,3S,4R,5R,6R)-4,5-bis(benzyloxy)-6-benzyloxymethyl-3-hydroxytetrahydro-2H-pyran-2-yl]-5,7-dihydroxy-2-phenyl-4H-chromen-4-one gave (7aR,8S,9R,10R,1laS)-8,9-bis(benzyloxy)-10-(benzyloxy)methyl-5-hydroxy-2-phenyl-7a,9,10,1la-tetrahydro-4H,8H-pyrano[2',3':4,5]furo[2,3-h]chromen-4-one, which was deprotected to afford the corresponding flavone derivative. The product inhibited the ear swelling of in mice with TNCB-induced contact dermatitis in a dose-dependent manner.

IT 866737-00-0P 873077-63-5P

866737-00-0P 873077-63-5P
RL: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of flavones as antiallergy and anti-inflammatory agents)

RN 866737-00-0 CAPLUS

CN 4H,8H-Pyrano[2',3':4,5]furo[2,3-h]-1-benzopyran-4-one, 7a,9,10,11a-tetrahydro-5,8,9-trihydroxy-10-(hydroxymethyl)-2-(4-hydroxyphenyl)-, (7aS,8S,9S,10R,11aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 873077-63-5 CAPLUS

CN 4H,8H-Pyrano[2',3':4,5]furo[2,3-h]-1-benzopyran-4-one, 7a,9,10,11a-tetrahydro-5,8,9-trihydroxy-10-(hydroxymethyl)-2-(4-methoxyphenyl)-, (7aS,8S,9S,10R,11aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 873077-34-0P 873077-51-1P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of flavones as antiallergy and anti-inflammatory agents)

RN 873077-34-0 CAPLUS

4H,8H-Pyrano[2',3':4,5]furo[2,3-h]-1-benzopyran-4-one,
7a,9,10,11a-tetrahydro-5-hydroxy-2-(4-hydroxyphenyl)-8,9bis(phenylmethoxy)-10-[(phenylmethoxy)methyl]-, (7aR,8S,9R,10R,11aS)(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 873077-51-1 CAPLUS
CN 4H,8H-Pyrano[2',3':4,5]furo[2,3-h]-1-benzopyran-4-one,
7a,9,10,11a-tetrahydro-5-hydroxy-2-(4-methoxyphenyl)-8,9bis(phenylmethoxy)-10-[(phenylmethoxy)methyl]-, (7aR,8S,9R,10R,11aS)(9CI) (CA INDEX NAME)

Absolute stereochemistry.

```
L11
     ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
     2005:1103788 CAPLUS
ΑN
DN
     143:386847
     Process for producing flavone c glycoside derivatives Tsuji, Kuniro; Nukaya, Haruo
ΤI
IN
     Suntory Limited, Japan
PA
SO
     PCT Int. Appl., 24 pp.
     CODEN: PIXXD2
DΤ
     Patent
      Japanese
LA
FAN.CNT 1
     PATENT NO.
                            KIND
                                    DATE
                                                  APPLICATION NO.
```

DATE WO 2005095416 A1 20051013 WO 2005-JP5695 20050328 AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, W: GB, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LU, LV, MA, MD, LR, LS, LT, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY. TR, TT, TJ, TM, TN, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, ĢΜ, ΚE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,

AB This invention provided a process for efficiently producing a flavone C glycoside derivative represented by the formula I which is an antiallergic substance or its salt, or a flavone C glycoside derivative represented by the formula II or its salt. I and II can be easily and efficiently synthesized by using isovitexin and vitexin contained in herbs and so on as the starting materials reacted in the presence of dehydrating agent, such as 1,1'-azobis[N,N-dimethylformamide] and tri-n-butylphosphine.

IT 866737-00-0P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of flavone c glycoside derivs. by cyclization of (iso)vitexin) 866737-00-0 CAPLUS

RN 866737-00-0 CAPLUS CN 4H,8H-Pyrano[2',3':4,5]furo[2,3-h]-1-benzopyran-4-one, 7a,9,10,11a-tetrahydro-5,8,9-trihydroxy-10-(hydroxymethyl)-2-(4-hydroxyphenyl)-, (7aS,8S,9S,10R,11aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD